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(12) UK Patent Application (19) GB (11) 2 172 852 A

(43) Application published 1 Oct 1988

(21) Application No 8605654

(22) Date of filing 7 Mar 1986

(30) Priority date

(31) 8501323

(32) 19 Mar 1985

(33) SE

(51) INT CL⁴
G06F 3/02(52) Domestic classification (Edition H):
B6F.CN
U1S 2123 B6F(56) Documents cited
None(58) Field of search
B6F
G4A
H4K
H4P
Selected US specifications from IPC sub-classes B41J
G06F(71) Applicant
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Boutt, Wade & Tennant, 27 Fenchurch Street,
London EC4A 1PQ(54) Wrist support associated with a
keyboard

(57) A keyboard 1 is adapted both to operations making use of the entire keyboard, and to operations involving essentially the numeric section of the keyboard only, by said keyboard being provided with a wrist support 5 pivotally mounted in the lower edge 8 of the keyboard. The wrist support can be turned in or retracted under the keyboard, or it can be turned outwards to a position where the wrist support substantially forms an extension 6 of the keyboard topside. The mounting of the wrist support has been intentionally performed with a certain rotational friction which is sufficient for the support to be retained in its retracted position even when lifting the keyboard.

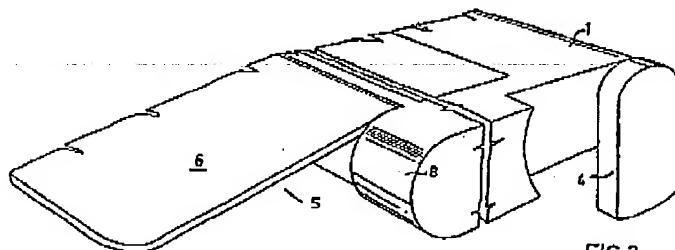
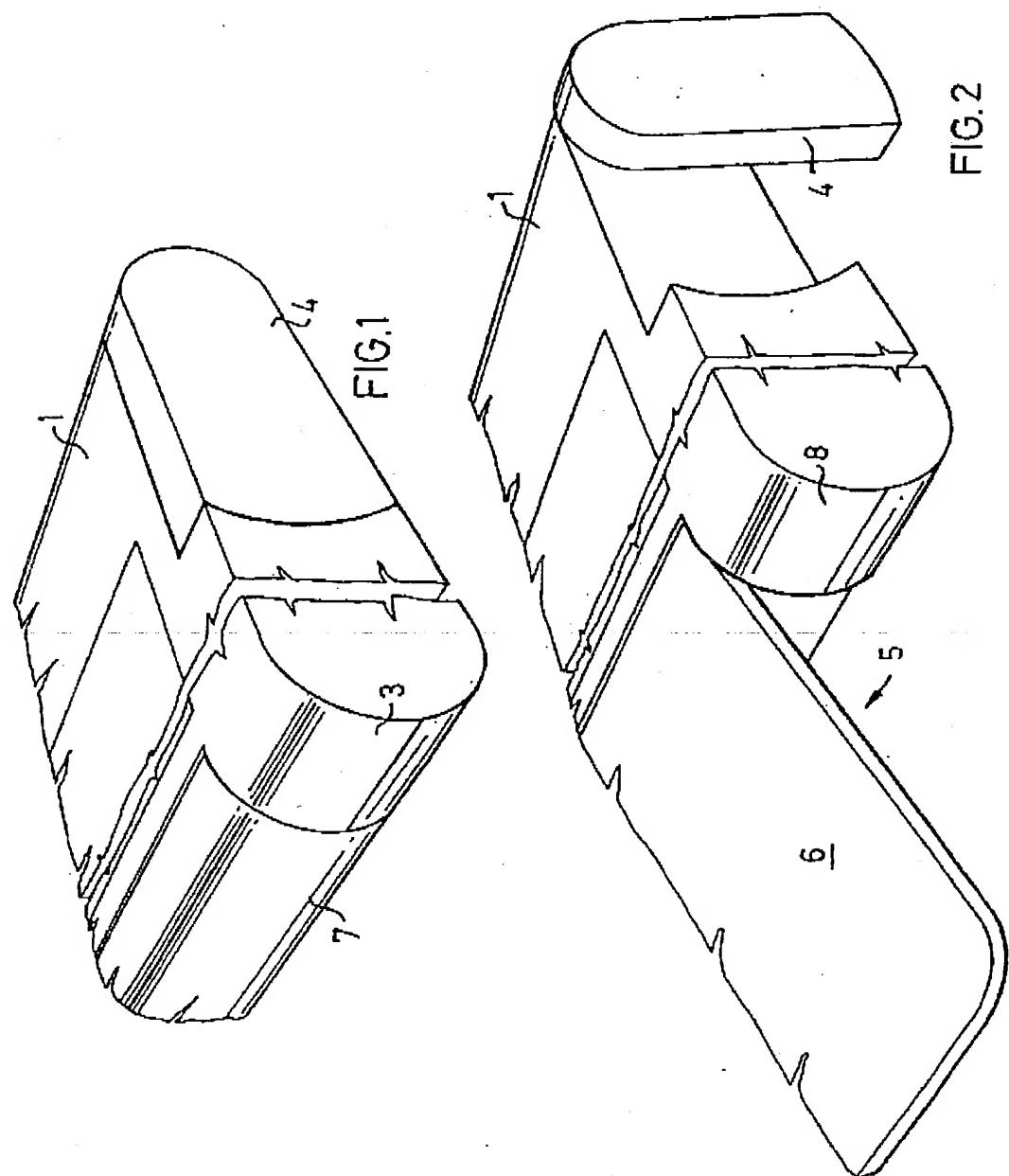


FIG.2

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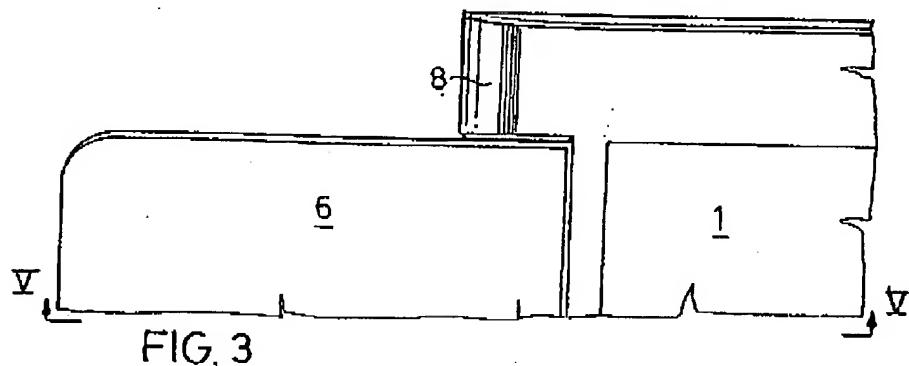


FIG. 3

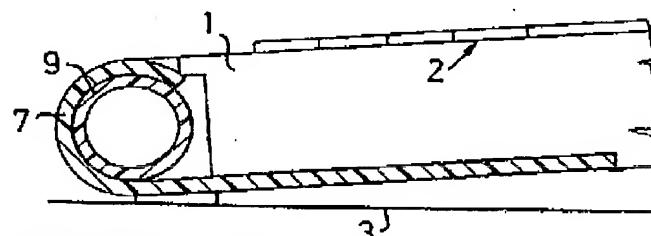


FIG. 4

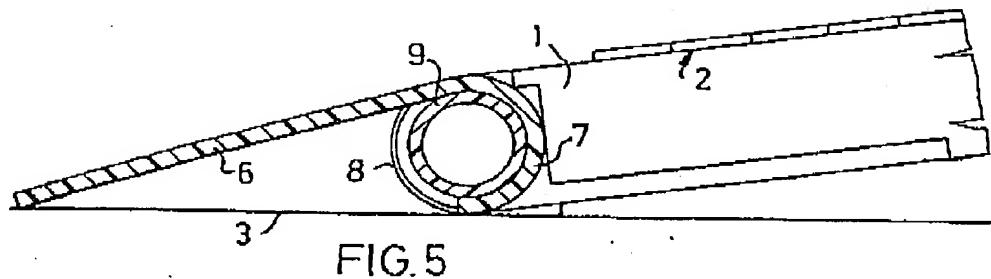


FIG. 5

SPECIFICATION

Device for a wrist support

5 The present invention relates to a keyboard.

The invention described below is designed for obtaining an optional usage of a wrist support for keyboard works. The majority of today's personal computers are utilized for a plurality of different 10 application areas such as, for example, word processing, calculating, creating graphs, accounting, statistics input, generating reports, programming, etc. In all those applications, both the alphabetic and the numeric section of the keyboard are being 15 used. Generally speaking, however, up-to-date programs and work operations may be subdivided into two main groups.

Group one includes operations utilizing the entire keyboard such as, for example, word processing, a number of registration processes, and 20 programming.

Group two relates to operations in which essentially the numeric section of the keyboard is used. This is the case for example in accounting, calculating and statistics input.

Both these groups have in common the desire of minimizing the space on the desk occupied by the keyboard.

Numerous ergonomic investigations and practical tests have established that for the implementation of varying tasks associated with each of said groups, different demands are placed on relieving the user's hand with the aid of a wrist support. When carrying out operations relating to group 30 one, it is most often desired to work without a wrist support as this would be experienced as interfering with the work when the whole keyboard is used, necessitating for the hands to move freely over the key-board without being prevented by a 35 support inhibiting these movements in certain cases.

Said investigations have also pointed towards the importance of having a wrist support when working substantially with the input of numbers. 40 This is especially the case in bookkeeping operations and the like. In such situations the hand does not move over the entire keyboard area but concentrates mainly on the numeric section thereof.

According to the present invention a keyboard is 45 provided with a wrist support pivotally mounted in the lower edge of the keyboard in such a manner that the wrist support can either be turned in under the keyboard, or it can be turned outwards to a position where the wrist support forms a substantially 50 planar extension of the keyboard topside, and in that the attachment of the wrist support has been intentionally designed to generate a certain frictional force sufficient for the wrist support, despite its own weight, to remain fixed on its re- 55 tracted position even if the keyboard is lifted.

The keyboard is thereby provided with a foldable 60 wrist support designed to be optionally retracted when the keyboard is used for "group two" operations. The support is preferably affixed to the lower 65 edge of the keyboard, and advantageously a cer-

tain frictional resistance is applied to the point of attachment causing thereby the support to remain retracted even when the keyboard is raised.

An embodiment of a keyboard provided with the inventive wrist support is shown in the drawings, of which

Figures 1 and 2 are schematic, obliquely seen lateral views of a keyboard section with a retracted and an outwardly extended wrist support, respectively;

Figure 3 is a schematic view seen straight from above of a keyboard section with an outwardly extended wrist support; and

Figures 4 and 5 are schematic views of sections taken through a keyboard with a retracted and an outwardly extended wrist support, respectively.

Figures 1 and 2 illustrate schematically lateral sections of a keyboard 1 which may conventionally be placed on an underlying desktop. The keyboard is provided on its upper side with a number of keys. For the sake of clarity, both the underlying desktop and the keys have been omitted in Figures 1-3; the keys 2 instead being indicated by lines in Figure 4, and the underlying desktop 3 with an unbroken line as shown in Figures 4 and 5. The keyboard angle to the desk can be set with the aid of adjustable legs 4 located at the rear edge of the keyboard; see Figures 1 and 2.

The wrist support 5 shown in the figure consists of a rectangular plate 6 which is circularly bent in at one of its long sides. As is clearly evident from Figures 4 and 5, the circular band 7 extends over more than half a revolution. The support is mounted in the lower edge 8 of the keyboard by

the circular bend of the plate enclosing a shaft 9 which is in turn mounted in the lower edge of the keyboard on either side of the wrist support. The attachment is made so as to provide a certain amount of friction at the point of attachment between the inward bend and the shaft, and possibly also between shaft and keyboard, so as to generate a rotational resistance which is sufficient for retaining the plate in its retracted position, even if the keyboard is lifted. The plate is made of a heat

110 insulating rigid material such as, for example, plastic coated sheet metal or the like.

As shown in Figures 1 and 4, the plate can be turned around the shaft, allowing it to be moved in under the keyboard. As shown in Figures 2, 3 and

115 5, the wrist support can further be turned to a position in which the plate forms a substantially planar extension of the upper side of the keyboard. By virtue of the plate being movably mounted, the angle to the underlying desktop is then "automatically" adjusted when the angle of the keyboard is set by means of the adjustable legs located at the rear edge of the keyboard.

The invention is not restricted to the embodiment illustrated in the figure. For example, instead of the inwardly bent portion, the wrist support can have a solid or hollow circular cylinder connecting to the plate. For attachment, the through-going shaft in the keyboard can also be replaced by pins engaging in holes made in the keyboard.

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CLAIMS

1. A keyboard with alphanumeric characters, characterized in that for adapting the keyboard to application areas involving operations making use of substantially the entire keyboard such as word processing and programming for example, as well as operations utilizing substantially the numeric section of the keyboard only, such as calculating and statistics input, the keyboard is provided with a wrist support pivotally mounted in the lower edge of the keyboard in such a manner that the wrist support can either be turned in under the keyboard, or it can be turned outwards to a position where the wrist support forms a substantially planar extension of the keyboard topside, and in that the attachment of the wrist support has been intentionally designed to generate a certain frictional force sufficient for the wrist support, despite its own weight, to remain fixed in its retracted position even if the keyboard is lifted.
2. A keyboard according to Claim 1, characterized in that the wrist support is designed as a plate having one of its long sides transformed to a cylindrically bent portion.
3. A keyboard substantially as hereinbefore described with reference to and as shown in the accompanying drawings.

Printed in the UK for HMSO, 08818935, 8/88, 7102.
Published by The Patent Office, 25 Southampton Buildings, London,
WC2A 1AY, from which copies may be obtained.